DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014507 Address: 333 Burma Road **Date Inspected:** 01-Jun-2010

City: Oakland, CA 94607

OSM Arrival Time: 830 **Project Name:** SAS Superstructure Prime Contractor: American Bridge/Fluor Enterprises, a JV **OSM Departure Time:** 1700 Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: Jim Cunningham and William She@WbbPresent: Yes No

Inspected CWI report: Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Orthotropic Box Girder

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG L1E/L2E bottom plate 'D' outside, QA randomly observed ABF/JV qualified welder Mitch Sittinger perform CJP groove welding repair. The welder was observed welding in the 4G (overhead) position utilizing Shielded metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repairs. The repair excavations were preheated to more than 140 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC Jim Cunningham was noted monitoring the welder. Prior welding, ABF QC Jim Cunningham was also observed performing Magnetic Particle Testing (MT) using Parker Contour Probe with red magnetic powder as detecting media on the repair excavation prior welding. During the shift, the welder has completed two welding the repairs and was working on the third repair at the end of the shift.

At OBG L2W/L3W edge plate 'F' outside, QA randomly observed new ABF/JV qualified welder Xiao Jian Wan ID #9677 perform fill pass welding on the splice butt joint. The welder was observed manually welding in the 3G (vertical) position utilizing a dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16" diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3040B-3. The joint being welded has a single V-groove butt joint with backing bar. The splice joint was preheated to greater than 150 degree Fahrenheit using propane gas torch prior welding. During welding, ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder. QA randomly monitored the

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welding parameters with readings of 210 amperes and 21.0 voltages which appear in conformance to the contract requirements. Welding of the splice joint cover was completed during the shift.

At OBG L2W/L3W side plate 'E' outside, QA randomly observed three ABF personnel flush grinding weld cover reinforcement of the splice butt joint back weld. The personnel were using grinding disc followed by flapper disc to make a smooth finish. Flush grinding of the whole length of the splice butt joint back weld was not completed at the end of the shift and will continue tomorrow.

At OBG L4W/L5W bottom plate 'D' outside, ABF welder Rick Clayborn was observed tack welding fitting gear/temporary attachment to be used for backing bar installation. The welder was noted welding in 4F position using Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode. Welding and welding parameters were noted being monitored by ABF QC Bonifacio Daquinag. Tack welding of the fitting gear in this plate was not completed and per QC it should continue tomorrow.









Summary of Conversations:

As stated above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or

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remedial efforts please contact SMR Mohammad Fatemi (916) 227-5298, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer